

AMENDMENT TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application:

- 1) (Previously presented) An artificial promoter characterized for being a recombinant DNA molecule promoting expression in plant cells of a DNA sequence fused to its 3' end, comprising:
 - a) a 5' transcription regulator element followed by,
 - b) an artificial core promoter comprising a TATA box, a nucleotide sequence with a GC content lower than 64% and a transcription initiation site fused in its 3' end to,
 - c) a synthetic nucleotide sequence transcriptable but not translatable, conformed by a first chimerical Exon, an artificial Intron able to enhance the expression of genes fused to it in plant cells, and a second chimerical Exon with translation enhancement properties of a gene inserted downstream.
- 2) (Withdrawn) An artificial promoter according to Claim 1 wherein the 5' transcription regulation element is artificial.
- 3) (Currently Amended) An artificial promoter according to Claim 1 ~~wherein~~ wherein the 5' transcription regulation element is homologous to a DNA sequence that naturally enhances and/or regulates gene expression in plant cells.
- 4) (Previously Amended) An artificial promoter according to Claim 3 wherein the 5' transcription regulation element is from rice actin-1 gene.

- 5) (Previously Amended) An artificial promoter according to Claim 4, wherein the 5' transcription regulation element comprises the region from -43 to -310 of the rice actin-1 gene transcription initiation site.
- 6) (Currently Amended) An artificial promoter according to Claim 5 wherein the 5' transcription regulation element nucleotide sequence ~~corresponds to~~ comprises SEQ ID NO: 10 or a fragment thereof.
- 7) (Withdrawn) An artificial promoter according to Claim 5 wherein the 5' transcription regulation element nucleotide sequence corresponds to SEQ ID NO: 11 or a fragment thereof.
- 8) (Withdrawn) An artificial promoter according to Claim 3 wherein the 5' transcription regulation element is from maize ubiquitin-1 gene.
- 9) (Withdrawn) An artificial promoter according to Claim 8 wherein the 5' transcription regulation element nucleotide sequence comprises the region from -299 to -855 of the maize ubiquitin-1 gene transcription initiation site.
- 10) (Withdrawn) An artificial promoter according to Claim 9 wherein the 5' transcription regulation element corresponds to SEQ ID NO: 19 or a fragment thereof.
- 11) (Withdrawn) An artificial promoter according to Claim 2 wherein the 5' transcription regulation element is an as-1-like transcriptional enhancer.
- 12) (Withdrawn) An artificial promoter according to Claim 11 wherein the nucleotide sequence of as-1-like transcriptional enhancer is essentially identical to the sequence fragment corresponding to nucleotides 7 to 26 of SEQ ID NO: 13, or to the complementary sequence.
- 13) (Withdrawn) An artificial promoter according to Claim 3 wherein the 5' transcription regulation element is from a viral promoter.

- 14) (Withdrawn) An artificial promoter according to Claim 13 wherein the 5' transcription regulation element is from CaMV 35S promoter.
- 15) (Withdrawn) An artificial promoter according to Claim 2 wherein the 5' transcription regulation element controls gene expression in plant cells with development-, organ- or tissue-specificity.
- 16) (Withdrawn) An artificial promoter according to Claim 15 wherein the 5' transcription regulation element controls expression in seeds.
- 17) (Withdrawn) An artificial promoter according to Claim 16 wherein the 5' transcription regulation element is from rice gluteline B-1 gene.
- 18) (Withdrawn) An artificial promoter according to Claim 17, wherein the 5' transcription regulation element comprises a fragment of the region from -31 to -245 from the rice gluteline B-1 gene transcription initiation site.
- 19) (Withdrawn) An artificial promoter according to Claim 18 wherein the 5' transcription regulation element corresponds to SEQ ID NO: 21 or a fragment thereof.
- 20) (Withdrawn) An artificial promoter according to Claim 15 wherein the 5' transcription regulation element controls gene expression in plant cells under biotic or abiotic stress.
- 21) (Withdrawn) An artificial promoter according to Claim 15 wherein the 5' transcription regulation element controls gene expression in wounded plant tissues.
- 22) (Currently Amended) An artificial promoter according to Claim 1 wherein the 5' transcription regulation ~~region element~~ comprises 2 or more regulator elements from different origin operatively fused [,].
- 23) (Canceled)

- 24) (Withdrawn) An artificial promoter according to Claim 1 wherein the first Exon from the artificial Exon/Intron/Exon region comprises sequences wherein the motif CTCC and/or its homologous sequences CTC, TCC and TC are frequently repeated.
- 25) (Currently Amended) An artificial promoter according to Claim 1, which Intron from the artificial Exon/Intron/Exon region comprises sequences wherein the a CTCC motif and/or its homologous sequences CTC, TCC and TC are frequently repeated.
- 26) (Currently Amended) An artificial promoter according to Claim ~~23~~ 1, wherein the nucleotide sequence of the artificial Exon/Intron/Exon region ~~corresponds to~~ comprises SEQ ID NO: 6 or a fragment thereof.
- 27) (Original) An artificial promoter according to Claim 1 wherein the second Exon from the artificial Exon/Intron/Exon region comprises sequence motifs with high C and A content.
- 28) (Withdrawn) An artificial promoter according to Claim 1 wherein the second Exon from the artificial Exon/Intron/Exon region comprises a sequence having at least 83 % homolog with motif HCAYYY (H= C or T or A; Y= C or T).
- 29) (Currently Amended) An artificial promoter according to Claim 27 wherein the nucleotide sequence of the second Exon from the artificial Exon/Intron/Exon region ~~corresponds to~~ comprises SEQ ID NO: 1.
- 30) (Withdrawn) An artificial promoter according to Claim 1 wherein nucleotide sequence of the artificial Exon/Intron/Exon region corresponds to SEQ ID NO: 8 or a fragment thereof.
- 31) (Withdrawn) An artificial promoter according to claim 1, wherein the nucleotide sequence of the artificial Exon/Intron/Exon region corresponds, at least partially, to SEQ ID NO: 20.

- 32) (Withdrawn) A DNA fragment from an artificial promoter according to Claim 1 such that, when fused to a promoter functional in plants, contributes to enhance expression of DNA sequences controlled by said promoter.
- 33) (Withdrawn) An artificial promoter fragment according to Claim 32 able to enhance translation of genes fused to it.
- 34) (Withdrawn) An artificial promoter fragment according to Claim 33, comprising a sequence having at least 83 % homolog with motif HCAYYY (H= C or T or A; Y= C or T).
- 35) (Withdrawn) An artificial promoter fragment according to Claim 33 with sequence motifs C and A rich.
- 36) (Withdrawn) An artificial promoter fragment according to Claim 33 wherein the nucleotide sequence corresponds to SEQ ID NO: 1.
- 37) (Withdrawn) An artificial promoter fragment according to Claim 33 that contributes to enhance translation of mRNA's produced from the CaMV 35S promoter in plant cells.
- 38) (Withdrawn) An artificial promoter fragment according to Claim 32 corresponding to an Exon/Intron/Exon region.
- 39) (Withdrawn) An artificial promoter fragment according to Claim 38 wherein the first Exon comprises sequence motifs C and A rich.
- 40) (Withdrawn) An artificial promoter fragment according to Claim 38 wherein the first Exon comprises sequences wherein the motif CTCC and/or its homologous sequences CTC, TCC and TC are frequently repeated.
- 41) (Withdrawn) An artificial promoter fragment according to Claim 38 wherein the Intron comprises sequences wherein the motif CTCC and/or its homologous sequences CTC, TCC and TC are frequently repeated.

- 42) (Withdrawn) An artificial promoter fragment according to Claim 38 wherein the nucleotide sequence corresponds with sequence in SEQ ID NO: 6.
- 43) (Withdrawn) An artificial promoter fragment according to Claim 38 wherein the nucleotide sequence corresponds with sequence in SEQ ID NO: 8.
- 44) (Withdrawn) An artificial promoter fragment according to Claim 38 that contributes to enhance the expression of a gene under the control of CaMV 35S promoter in plant cells.
- 45) (Withdrawn) An artificial promoter fragment according to Claim 32 corresponding to an as-1-like transcriptional enhancer.
- 46) (Withdrawn) An artificial promoter fragment according to Claim 32 which nucleotide sequence is essentially identical to that of the fragment corresponding to nucleotides 7 to 26 in SEQ ID NO: 13, or its complementary sequence.
- 47) (Withdrawn) An artificial promoter fragment according to Claim 32 corresponding to a 5' transcription regulation element.
- 48) (Withdrawn) An artificial promoter fragment according to Claim 47 wherein the 5' transcription regulation element is from rice actin-1 gene.
- 49) (Withdrawn) An artificial promoter fragment according to Claim 48 wherein the nucleotide sequence comprises a fragment from -43 to -310 of rice actin-1 gene transcription initiation site.
- 50) (Withdrawn) An artificial promoter fragment according to Claim 49 wherein the nucleotide sequence corresponds to SEQ ID NO: 10 or a fragment thereof.
- 51) (Withdrawn) An artificial promoter fragment according to Claim 49 wherein the nucleotide sequence corresponds to SEQ ID NO: 11 or a fragment thereof.
- 52) (Withdrawn) An artificial promoter fragment according to Claim 47 wherein the 5' transcription regulation element is from maize ubiquitin-1 gene.

- 53) (Withdrawn) An artificial promoter fragment according to Claim 52 wherein the nucleotide sequence comprises the region from -299 to -855 of maize ubiquitin-1 gene transcription start site.
- 54) (Withdrawn) An artificial promoter fragment according to Claim 53 wherein the 5' transcription regulation element corresponds to SEQ ID NO: 19 or a fragment thereof.
- 55) (Currently Amended) A cassette for the expression of DNA sequences in plant cells containing an artificial promoter ~~responding~~ according to Claim 1.
- 56) (Withdrawn) A cassette for the expression of DNA sequences in plant cells containing a transcription enhancer element functionally fused to a DNA fragment according to Claim 32.
- 57) (Currently amended) A DNA vector for plant cell transformation comprising an expression cassette for the expression of DNA sequences in plant cells containing an artificial promoter ~~responding~~ according to claim 1 or for the expression of DNA sequences in plant cells containing a transcription enhancer element functionally fused to a DNA fragment from an artificial promoter according to claim 1 such that, when fused to a promoter functional in plants, contributes to enhance expression of DNA sequences controlled by said promoter.
- 58) (Withdrawn) A bacterial cell carrying vector of claim 57 and its descendants.
- 59) (Withdrawn) A plant cell transformed with vector of claim 57, and its descendants.
- 60) (Withdrawn) A plant cell transformed with the vector of Claim 57, and its descendants, expressing the DNA fragment under the control of the artificial promoter in the expression cassette introduced by the means of the vector.
- 61) (Withdrawn) A plant cell transformed with the vector according to claim 57, and its descendants, wherein the expression cassette is stably integrated into its genome.

- 62) (Withdrawn) A transgenic plant regenerated from the plant cell according to claim 61.
- 63) (Withdrawn) A transgenic plant regenerated from a plant cell transformed with the vector of claim 57, and its descendants, expressing the DNA fragment under the control of the artificial promoter comprised into the expression cassette introduced by the means of the vector.
- 64) (Withdrawn) Transgenic plant descendants according to claim 63.
- 65) (Withdrawn) Plants according to Claim 64 being dicots.
- 66) (Withdrawn) Plants according to Claim 65 being Solanaceae.
- 67) (Withdrawn) Plants according to Claim 66 belonging to one of the following species: tobacco, tomato or potato.
- 68) (Withdrawn) Plants according to Claim 64 being monocots.
- 69) (Withdrawn) Plants according to Claim 68 being gramineae.
- 70) (Withdrawn) Plants according to Claim 69 belonging to one of the following species: rice, sugarcane, maize, wheat or barley.
- 71) (Withdrawn) The purification or use of recombinant proteins produced by cells or plants according to claim 60 as a result of the expression of the DNA fragments sited under the control of the artificial promoter comprised into the expression cassette introduced by the means of the vector.
- 72) (Withdrawn) The purification or use of recombinant proteins produced by cells or plants according to claim 63 as a result of the expression of the DNA fragments sited under the control of the artificial promoter comprised into the expression cassette introduced by the means of the vector.